REMARKS

Claims 1 through 3 and 5 through 8 are pending in this Application. Claims 1, 2, 5, and 7 have been amended. Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure, noting that the limitations of claim 4 have been incorporated into claims 1 and 2, the dependency of claim 5 appropriately amended, the limitations of claim 9 incorporated into claim 7, and claims 4 and 9 cancelled. Applicant submits that the present Amendment does not generate any new matter issue.

Information Disclosure Statement.

The Examiner again asserted that a clean copy of the "LT Codes" reference cited in the Information Disclosure Statement filed on December 10, 2003 was not a legible copy. However, a legible copy was submitted in a Supplemental Information Disclosure statement filed on June 9, 2006. The Examiner did not comment on that June 9, 2006 Supplemental Information Disclosure Statement. Efforts to reach the Examiner by telephone proved unavailing.

In an abundance of caution, Applicant submitted another Supplemental Information Disclosure Statement on October 3, 2006, including a legible copy of the reference by Michael Luby entitled "LT Codes". **The Examiner is requested to acknowledge receipt of the Supplemental Information Disclosure Statement and to provide an appropriately initialed copy of Form PTO-1449 indicating consideration of each cited reference.**

Claims 1 through 9 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Horn et al.

In the statement of the rejection the Examiner asserted that Horn et al. disclose a transmission data generation method and equipment identically corresponding to those claimed. This rejection is traversed.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc., 329 F.3d 1358, 66 USPQ2d 1801 (Fed. Cir. 2003); Crown Operations International Ltd. v. Solutia Inc., 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002).* There are fundamental differences between the claimed method and equipment vis-à-vis the method and equipment of Horn et al., that scotch the factual determination that Horn et al. disclose a method and equipment identically corresponding to those claimed.

The present invention.

In order to facilitate an understanding of the differences between the claimed invention and Horn et al., the following explanation is offered for the Examiner's convenience. In Luby Transform, the original data of the contents are changed into meta contents, adding overhead, and packets having the meta contents data are distributed. The optimum value of the overhead when the original data are changed into meta contents varies according to the size of the data. However, the size of the data is arbitrary, so the distribution side sets the overhead to a safe value (the largest value of the fluctuation range of the overhead) so that the contents can be regenerated without deterioration, regardless of size. Therefore, compared with setting the

overhead to an optimum value according to the size of the data, the volume of meta contents transmission data increases and the transmission band increases.

The present invention is directed to optimizing the overhead according to the size of the data. Specifically, the present invention is directed to optimizing the overhead when a remaining block (a variable block) occurs by the block division.

The inventive method minimizes "e" as overhead in the system in which there are "e" and "L". Specifically, to cope with a change in the overhead due to a variable block, the inventive method sets "e" depending on the variable block. Adverting Fig. 6, "e" is overhead for creating meta contents in each segment, and "L" is a packet loss tolerance for packet loss. In the present invention, it is necessary to receive a packet adding "e" so that the original data of the contents is restored to 100%.

In accordance with the present invention, the size of a fixed block is set based on the overhead. The size of the segment may be an integer multiplication of the size of the fixed block, or may not be an integer multiplication thereof. When the size of the segment is an integer multiplication of the size of the fixed block, the segment consists of a plurality of fixed blocks, and the smallest overhead for the segment consists of the overhead in the fixed block. When the size of the segment is not an integer multiplication, the segment consists of a plurality of fixed blocks and one remaining block, and the smallest overhead for the segment consists of the overhead in the fixed block and the overhead in the remaining block.

Therefore, as one having ordinary skill in the art would have understood, in the present invention, when the size of the segment is not an integer multiplication of the size of the fixed block, the overhead of a variable block (the remaining block) is determined for each segment of the contents. Thus, in the present invention, for each segment, the overhead of the variable block

is set to an optimum value according to the size of the variable block. The overhead of the variable block is a value unlike the overhead of the fixed block, and is the value that is bigger than the overhead of the fixed block.

Further, in accordance with the present invention, when the size of segment is an integer multiplication of the size of the fixed block, the overhead for each segment is set based on the overhead in the fixed block; and when the size of the segment is not an integer multiplication of the size of the fixed block, the overhead for each segment is set based on the overhead in the fixed block and the overhead in the variable block of the segment. Thus, in the present invention, for each segment, the overhead of the segment is set to an optimum value according to the size of the segment.

For example, as shown in Fig. 8, the overhead takes a value of 104%-105% depending on the data size. In the present invention, the size of a fixed block is set based on an overhead of 104%. Therefore, when the size of the segment is an integer multiplication of the size of the fixed block, the overhead "e" of the segment is 104%. Further, when the size of the segment is not an integer multiplication of the size of the fixed block, the most suitable overhead for the variable block is calculated by the method to show in figure 10, and the most suitable overhead of the segment is calculated by the overhead (a value that is bigger than 104%) of the variable block and the overhead (104%) of the fixed block. Therefore, in the present invention, extra data are not transmitted, and the redundancy is set at the most suitable value.

The above explanation of the present invention should drive home the fact that Horn et al. neither disclose nor suggest a method and equipment corresponding to those claimed. This should be even more apparent from the following discussion.

Horn et al.

In Horn et al., "e/(1-L)" is the overhead, and "e" is a fixed value. For example, if "L" is 20% and "e" is 100%, the number of distributed packets is "1/(1-0.8)=1.25" times of the original number of packets.

To cope with a change of the overhead due to a variable block, Horn et al. set "e" to a safe value (the largest value of the fluctuation range of the overhead). Therefore, in Horn et al., the overhead is set the same value (the safe value) for all segments. For example, the overhead takes a value of 104%-105% depending on the data size. When the size of the segment is an integer multiplication of the size of the fixed block, "e" is 105%, and when the size of the segment is not an integer multiplication of the size of the fixed block, "e" is 105%. Therefore, in Horn et al., extra data are transmitted, and the redundancy is set at an overly large value.

If "L" is 0%, the overhead "e" of the present invention appears to agree with the overhead "e/(1-L)" of Horn et al. However, the invention of Horn et al. assumes that "L" will never be 0%. Moreover, the invention of Horn et al. does not provide a method to minimize "e" depending on changes in the data size.

The above argued apparent differences between the claimed method and equipment vis-à-vis those of Horn et al. undermine the factual determination that Horn et al. disclose a transmission data generation method and transmission data generation equipment identically corresponding to those claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc., 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986).* Applicant, therefore, submits that

the imposed rejection of claims 1 through 9 under 35 U.S.C. § 102 for lack of novelty as evidenced by Horn et al. is not factually viable and, hence, solicits withdrawal thereof.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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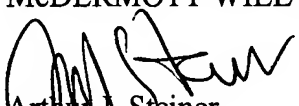

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